

SEMIPACK® Fast Thyristor/Diode Modules

isolated metal bases. $V_{ISO1} = 2500 V$

SEMIPACK® Schnelle Thyristor/Dioden- Module

SEMIPACK® Modules à thyristors/diodes rapides

Types ¹⁾ All data apply to one single valve device (thyristor or diode)	V_{DRM} V	V_{RRM} V	I_{TRMS} I_{FRMS} A	$I_{TAV}^{(2)}$ $I_{FAV}^{(2)}$ (T_{case}) A	I_{TSM} I_{FSM} 25 °C 10 ms A	I^2t 25 °C 10 ms A ² s	$(\frac{dv}{dt})_{cr}$ V/ μ s	V_T, V_F max. (I_T, I_F) V	$V_{T(RO)}$ $V_{F(RO)}$ V	r_T m Ω	t_T 25 °C μ s	t_a 125 °C μ s	V_{GT} min. ($t_p = 100 \mu$ s) V	I_{GT} min. ($t_p = 100 \mu$ s) mA
SKFA ⁹⁾ 18/08 CP /08 CP /10 CP /11 CP /12 CP	600 800 1000 1100 1200	10	36	17 (80 °C) 50 Hz	350	610	200	2,5 (70 A)	1,4	12	0,3	5	3	200
SKFH 20/08 DS /10 DS; DT /12 DT; DU	800 1000 1200	800 1000 1200	45	20 (85 °C)	550	1500	500	2,5 (150 A) 125 °C	1,7	5,5	1	15 15;20 20;25	3	200
SKFH 30/08 DT /10 DT /12 DT	800 1000 1200	800 1000 1200	75	30 (89 °C)	1000	5000	500	2,25 (150 A) 125 °C	1,6	4	1	20	3	200
SKFH 40/08 DS; DU /10 DT; DU /12 DT; DU	800 1000 1200	800 1000 1200	110	40 (87 °C)	1300	8400	500	2,3 (200 A) 125 °C	1,8	2	2	15;25 20;25 20;25	3	200
SKFH 60/08 DS /10 DT /12 DT; DU	800 1000 1200	800 1000 1200	130	60 (81 °C)	1500	11250	500	1,75 (200 A) 125 °C	1,5	1,5	2	15 20 20;25	3	200
SKFH 110/04 DS; DT /08 DS; DT /10 DS; DT /12 DU	400 800 1000 1200	400 800 1000 1200	250	110 (85 °C)	4500	101000	500	1,85 (400 A) 125 °C	1,45	1	2	15;20 15;20 15;20 25	4	250
SKFH 150/06 DS /08 DS /09 DS /10 DS	600 800 900 1000	600 800 900 1000	385	150 (85 °C)	6500	210000	500	2,05 (1200 A)	1,4	0,5	-	15	5	250
SKAH ⁹⁾ 180/12 DS /14 DS	1200 1400	15	385	180 (80 °C)	8000 (8,3 ms)	265000	500	2,2 (1200 A)	1,4	0,4	-	15	5	250
SKFT 20/06 DS; DT /08 DS; DT /10 DS; DT /12 DT; DU	600 800 1000 1200	600 800 1000 1200	45	20 (85 °C)	550	1500	500	2,5 (150 A) 125 °C	1,7	5,5	-	15;20	3	200
SKFT 30/06 DS; DT /08 DS; DT /10 DS; DT /12 DT; DV	600 800 1000 1200	600 800 1000 1200	75	30 (89 °C)	1000	5000	500	2,25 (150 A) 125 °C	1,6	4	-	15;20 15;20 15;20 20;30	3	200
SKFT 40/08 DS; DU /10 DT; DU /12 DT; DU	800 1000 1200	800 1000 1200	110	40 (87 °C)	1300	8400	500	2,3 (200 A) 125 °C	1,8	2	-	15;20 20;25 20;25	3	200
SKFT 60/08 DS; DT /10 DT /12 DT; DU /14 DU	900 1000 1200 1400	800 1000 1200 1400	130	60 (81 °C)	1500	11250	500	1,75 (200 A) 125 °C	1,5	1,5	-	15;20 20 20;25 25	3	200
SKFT 110/04 DS; DT /08 DS; DT /10 DS; DT /12 DU /14 DU	400 800 1000 1200 1400	400 800 1000 1200 1400	250	110 (85 °C)	4500	101000	500	1,85 (400 A) 125 °C	1,45	1	-	15;20 15;20 15;20 25 25	4	250
SKKD 40 F04 F06 F08 F10	- - - -	400 600 800 1000	110	40 (80 °C)	1100	6000	-	2,0 (150 A)	1,2	4	0,2	-	-	-
SKKD 40 M08 M12 M14 M15	- - - -	800 1200 1400 1500	110	40 (83 °C)	800	3200	-	1,85 (150 A)	1,0	5	1	-	-	-
SKKD ⁹⁾ 50 E01 E03 E04	- - -	100 300 400	110	50 (81,5 °C)	800	3200	-	1,6 (120 A)	0,8	6,5	0,06	-	-	-
SKKD 160 M08 M10 M12 M14 M15	- - - - -	800 1000 1200 1400 1500	300	160 (86 °C)	7000	245000	-	1,5 (400 A)	1,25	0,5	2	-	-	-
SKLD 20 F04 F06 F08 F10	- - - -	400 600 800 1000	40	15,2 (85 °C)	450	1000	-	2,15 (50 A)	1,3	12	0,2	-	-	-

1) Second code letter appended to the type number:

P: $t_q \leq 7 \mu$ s (gate-assisted turn-off. $V_G = -10 V$)

S: $t_q \leq 15 \mu$ s · T: $t_q \leq 20 \mu$ s

U: $t_q \leq 25 \mu$ s · V: $t_q \leq 30 \mu$ s

2) $f \leq 500$ Hz

3) Internal insulation: beryllium oxide

4) Epitaxial diodes

5) Asymmetric thyristors

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Moduli a tiristori/diodi veloci

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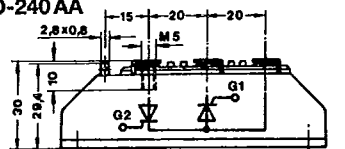
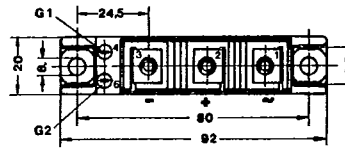
Módulos de tiristores/diodos rápidos

SEMIPACK®

Módulos de tiristores/diodos rápidos

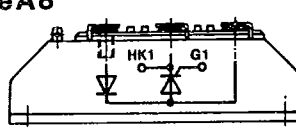
T _{vj} max.	R _{thjc} sin. 180	R _{thch}	Case	Circuit
°C	°C/W	°C/W	Page	
125	1,7	0,2	A18	
125	1,00	0,20	A8 ³	2
125	0,60	0,20	A8	
125	0,40 ³⁾	0,20	A8	
125	0,35 ³⁾	0,20	A8	
125	0,20 ³⁾	0,06	A14	
125	0,15 ³⁾	0,06	A32	
125	0,15 ³⁾	0,06	A32	
125	1,00	0,20	A5	
125	0,60	0,20	A5	
125	0,40 ³⁾	0,20	A5	
125	0,35 ³⁾	0,20	A5	
125	0,20 ³⁾	0,06	A13	
125	0,70	0,20	A10	
125	0,70	0,20	A10	
150	0,85	0,20	A20	
130	0,19 ³⁾	0,06	A16	
125	1,5	0,30	E23	
			23	

Case A5 SEMIPACK® 1
TO-240 AA

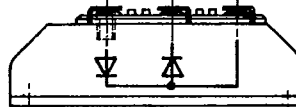
$M_1 = 5 \text{ Nm} \pm 15\%$ **UL approved**
 $M_2 = 3 \text{ Nm} \pm 15\%$ **No. E 63 532**
SKFT20...60 $w = 120 \text{ g}$

Case A8



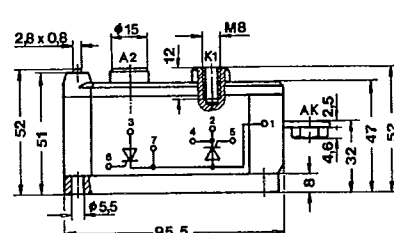
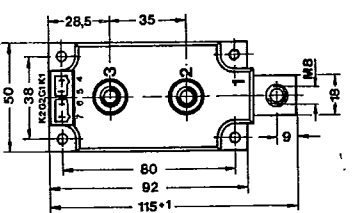
SKFH 20...60

Case A10



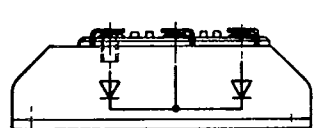
SKKD 40 F, SKKD 40 M

Case A13 SEMIPACK® 3

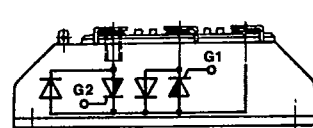
$M_1 = 5 \text{ Nm} \pm 15\%$ **UL approved**
 $M_2 = 9 \text{ Nm} \pm 15\%$ **No. E 63 532**
SKFT 110 $w = 820 \text{ g}$

Case A11



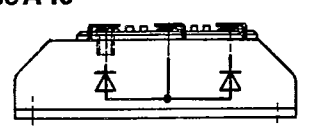
SKMD 40 F

Case A18



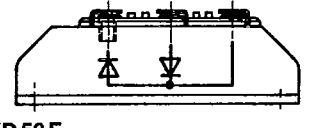
SKFA 18

Case A19



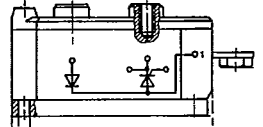
SKND 50 E

Case A20



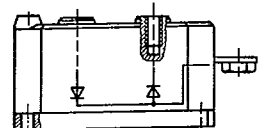
SKKD 50 E

Case A14



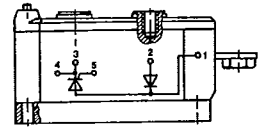
SKFH 110

Case A16



SKKD 160 M

Case A32



SKAH 180
SKFH 150